



TOP – NEXT YEAR'S HAZEL CATKINS
BOTTOM – CLIFDEN NONPAREIL

Introduction

These three months leading to the shortest day have been unusually warm. There have been almost no frosts recorded and day time temperatures are well above normal. In response to this warm weather some plants are already well into growth and we have seen the occasional bumble bee on the wing.

The recently started moth survey finished the season with some surprising finds so this report is starting with a look at the moths that we have found on the nursery in the last three months.

Moths

A total species count of twenty three for October, all the species seen and the number of individuals are listed below. Most of them are common moths and fit into the category of small drab and mainly brown in colour.

SPECIES	04 Oct 2015	SPECIES	11 Oct 2015	SPECIES	24 Oct 2015
Angle Shades	3	Angle Shades	1	Angle Shades	1
Black Rustic	2	Black Rustic	2	Barred Sallow	1
Brimstone Moth	1	Canary Shouldered Thorn	4	Beaded Chestnut	1
Burnished Brass	2	Common Wainscot	1	Black Rustic	2
Canary Shouldered Thorn	2	Dusky Thorn	1	Blairs Shoulder Knot	1
Chestnut	1	Large Yellow Underwing	10	Figure Of Eight	1
Clifden Nonpareil	1	Lunar Underwing	4	Large Yellow Underwing	1
Common Marbled Carpet	1	Sallow	1	Lunar Underwing	1
Common Wainscot	1	Setaceous Hebrew Character	2	Merveille De Jour	1
Frosted Orange	1	Small Emerald	1	Red Line Quaker	1
Large Yellow Underwing	8			Sallow	2
Lunar Underwing	7			Setaceous Hebrew Character	5
Setaceous Hebrew Character	3				
Square Spot Rustic	1				



The top picture is the Angle Shades moth, a common species exhibiting the typical drab brown colours of most moths. The lower picture is of the Small Emerald moth. This is a Sussex BAP species.



The first surprise is the species we are seeing. We have set the trap just four times so far. Three times in October and once in September which are not months when most moths are flying. The expectation therefore was that we would catch just a few moths and that the species we would see would all be common. This is not what has happened. In fact we also caught four species that are listed as "Biodiversity Action Plan" species for Sussex. These are the Small Emerald, Dusky Thorn, Figure Of Eight and Sallow.

Moths have a reputation for being very drab but this not universally true and we have caught some moths that are more beautifully marked. The previously mentioned Small Emerald is a distinctive greenish blue colour. The Canary Shouldered Thorn; for which we have seen four individuals in October has some bright yellow colours which make it easy to distinguish. The exotically named Merveille Du Jour is also very colourful and is unusual among British moths because it includes green shades.



Canary Shouldered Thorn



Merveille Du Jour

The stand out moth for 2015 is the Clifden Nonpareil which is pictured at the beginning of this report. This is a big moth; with a wingspan of up to 95mm, it is one of the biggest moths found in the UK. The forewings are a dull mottled grey camouflage colour which is hiding the brighter blues of the hind wing. This individual which we caught on the 4th October was not prepared to show its blue colouration very well. The moth would naturally show this bright blue marking to startle a predator if its camouflage had not been effective, the objective being to gain enough time to fly to a new hiding place and we did not want to force it to show better just for the camera.



This is mainly a continental species with a few flying the channel every year to the UK. It is a moth that rarely spotted and is considered to be one of the moths that enthusiasts most want to see.

If we continue to find moths on the nursery that are as interesting as the ones we found this autumn then next year will be a good year for moths!



The top picture shows the insect just about to fly away.

The lower pictures were the result of an accidental discovery that the moth could locate and liked the sugary remains of this porridge pot. The pot was nearby when the insect was taken out of a specimen tube and it flew straight to the pot and commenced feeding!

Wild Flowers

The mild weather is encouraging growth in the spring flowers, especially obvious are the primroses where flower buds are already visible. This year's growth of bramble and bracken has been removed earlier than last year so the plants can get the benefit of the sun. At this moment it looks as if they will be more prolific than last year. Primroses are a favourite flower with a range of early spring insects including bees.

This area of primroses seems to be benefiting from the clearance of scrubby growth that was threatening to shade them out to the extent that it may be possible to dig out a few plants and start another colony elsewhere on the nursery.

The Bluebells are also showing well under the hedge boundary, again this is a plant that is only known from one place. It is not yet possible to decide if they are also doing better than last year, but if they seem to be doing fine it would be good to try moving a few to a new location.

The Ox-Eye daisy plants which spent the summer growing in pots have now all been planted out in areas of long grass around the nursery. In these positions we hope they will get an opportunity to flower and spread around. They have proved to be a target for rabbits which then find they can dig out the plants. To stop this they have a mesh guard while they root in properly. In total they are in 16 places. It is hoped that in a couple of years the plants will have grown into substantial clumps and will be a new nectar source in the areas that are only mown at the end of the year.

As shown in the picture at the front of the report there are plenty of developing Hazel catkins on the northern boundary which will be a great nectar resource for bees in the spring.

Birds

Below is a table of all the species of birds seen during 2015.

BIRD SURVEY 2015									
SPECIES	JAN MAR 2015	APR JUNE 2015	JULY SEPT 2015	OCT DEC 2015	SPECIES	JAN MAR 2015	APR JUNE 2015	JULY SEPT 2015	OCT DEC 2015
BLACKBIRD	✓	✓	✓	✓	JAY	✓	✓	✓	✓
BLACK CAP	✗	✗	✗	✗	KESTREL	✓	✓	✓	✓
BLACK HEADED GULL	✓	✓	✓	✓	LESSER BLACK BACKED GULL	✓	✗	✗	✗
BLUE TIT	✓	✓	✓	✓	LINNET	✗	✓	✓	✗
BULLFINCH	✓	✗	✗	✗	LITTLE EGRET	✓	✗	✗	✗
BUZZARD	✓	✓	✓	✓	LITTLE GREBE	✗	✓	✓	✓
CANADA GOOSE	✓	✗	✗	✗	LONG TAILED TIT	✓	✗	✗	✗
CARRION CROW	✓	✓	✓	✓	MAGPIE	✓	✓	✓	✓
CHAFFINCH	✓	✓	✓	✓	MALLARD	✓	✓	✓	✓
CHIFFCHAFF	✓	✓	✓	✗	MOORHEN	✓	✓	✓	✓
COLLARED DOVE	✓	✓	✓	✓	MUTE SWAN	✓	✓	✓	✓
COMMON PARTRIDGE	✗	✗	✗	✗	PHEASANT	✓	✗	✗	✓
COMMON SANDPIPER	✗	✗	✓	✗	PIED WAGTAIL	✓	✓	✓	✓
COOT	✓	✓	✗	✗	ROBIN	✓	✓	✓	✓
CORMORANT	✗	✓	✓	✓	SHELDUCK	✗	✗	✗	✗
DUNNOCK	✓	✓	✓	✓	STARLING	✗	✓	✓	✗
GREATER SPOTTED WOODPECKER	✗	✓	✓	✓	SWALLOW	✗	✓	✓	✗
GREAT TIT	✓	✓	✓	✓	SWIFT	✗	✓	✓	✗
GREEN FINCH	✓	✓	✓	✓	SONG THRUSH	✓	✓	✓	✗
GREEN WOODPECKER	✓	✓	✓	✓	SPARROW HAWK	✓	✓	✗	✗
GREY HERON	✓	✓	✓	✓	TUFTED DUCK	✓	✓	✓	✓
GREY WAGTAIL	✓	✗	✓	✗	WHITETHROAT	✗	✓	✓	✗
GOLDCREST	✗	✓	✗	✓	WOOD PIGEON	✓	✓	✓	✓
GOLDFINCH	✓	✓	✓	✓	YELLOWHAMMER	✗	✗	✗	✗
HERRING GULL	✓	✓	✓	✓	WREN	✓	✓	✓	✓
HOUSE SPARROW	✓	✓	✓	✓					
SPECIES COUNT THIS PERIOD						36	39	38	31
SPECIES COUNT THIS YEAR						36	46	47	47
SPECIES COUNT 2012 ONWARDS						49	50	51	51

This year has been a good year for the bird survey. Our overall species count has increased by a further two and now stands at 51. All but four of these species were seen this year a total of 47. This is two species more than the previous best year which was 2014.

The total numbers of individual birds was probably also greater than all previous years for the first three quarters judging by the quantities of bird feed getting consumed and the data from the February bird count. It is the last period of the year that seems quieter than expected.

The very mild weather seems to be having an impact at our feeders. It is cold weather and difficult foraging conditions that inflate the numbers of birds seen at feeding stations. As foraging conditions are better than usual this is likely to be the reason we seeing less birds at the feeders.

Another regular feature of the nursery in the winter is an influx of Pied Wagtails using the nursery as an over night roost. This year they have not been here in big flocks. This could also be because of the weather, it is certainly not because the buildings have been made wagtail proof.

This makes a disappointing end to the year from our viewpoint but if the birds are having an easy winter it's not all bad.

Bees

There is just a single sighting of a bumble bee. In this part of the year when they should really be hibernating it is unusual to see any at all. This is probably another result of the warm winter we are having.

Trees

We have been growing more seedling trees through the summer in pots. A variety of species, all found growing around the site. Some of them have now been planted out in suitable places, mainly along the Lake Lane boundary beyond the rain water reservoir. In this area not all of the original trees have lived so there are gaps to fill. The remaining seedlings will be planted out in the early spring.

Of the trees planted last year, they are all alive and some particularly the Birches have grown very well.

Living under the Radar

An accidental discovery from being on the nursery after dark with the moth trap light on is that we could see bats flying around. This is the first time that we have had definite sightings of bats for a long time. They were seen flying up and down the track to the communications tower. The Four bat boxes that are located in the trees behind glasshouse 6-9 are possibly seeing some activity as they are also very close to where the bats were seen.

Summary

2015 has been a good year for the wildlife that we are fortunate to have living around our site for example our surveying shows an increase in both butterfly numbers and species. The effort must continue to drive through more improvements that could benefit biodiversity on the site.

An opportunity exists to improve the habitat in the area behind the pack house. This area of land, dominated by the mound created following the building of glasshouse A-D is almost entirely just strimmed and mown which restricts greatly its wildlife interest. Only one slope of the mound was allowed to grow to flowering stage for the first time ever last year. The picture is of this area covered in flowers. Next year we want to significantly expand the amount of land here allowed to flower. We know that this will involve tackling the perennial invasive weeds that grow here. If these are left unchecked they will come to dominate at the expense of all the other plants. In 2015 we achieved great success with the control of docks, nettles and burdock and some success with creeping thistle on the slope in the picture. This knowledge will help us to be successful in allowing the plants we would like to flower here to flourish without just creating a flora dominated by aggressive weeds. In turn the flowers will attract extra insect activity, especially pollinating insects. This will be a useful biodiversity gain for 2016.

